

## **Remarks**

These Remarks are in reply to the Office Action mailed April 2, 2008.

### **I. Summary of Examiner's Rejections**

Claims 1, 6-12, 14-26, and 28-30 were pending in the Application prior to the Office Action mailed April 2, 2008.

Claims 1, 6-8, 11, 12, 14-26, and 28-30 were rejected under 35 U.S.C. 103(a) as being unpatentable over Abrams et al. (US 6,836,883) in view of Chan et al. (US 2003/0028364) in view of Patel (US 2004/0103406) in view of Iwashita (US 7,073,167) and in view of Skinner (US 6,721,740).

Claim 9 was rejected under 35 U.S.C. 103(a) as being unpatentable over Abrams et al. (US 6,836,883) in view of Chan et al. (US 2003/0028364) in view of Patel (US 2004/0103406) in view of Iwashita (US 7,073,167) and in view of Skinner (US 6,721,740) further in view of Bau et al. (US 2003/0023957).

Claim 10 was rejected under 35 U.S.C. 103(a) as being unpatentable over Abrams et al. (US 6,836,883) in view of Chan et al. (US 2003/0028364) in view of Patel (US 2004/0103406) in view of Iwashita (US 7,073,167) and in view of Skinner (US 6,721,740) further in view of Vaidyanathan et al. (US 6,367,068).

### **II. Summary of Applicants' Response**

The present Reply amends claim 1, leaving for the Examiner's present consideration claims 1, 6-12, 14-26, and 28-30. Reconsideration of the rejections is requested.

III. Response to Rejections

35 U.S.C. 103(a) Rejection to Independent Claim 1

Independent claim 1 (as amended) states:

A system, comprising:

one or more compilers, executed by one or more processors, wherein the compilers support mixing and nesting of languages within a source file;

an extensible multi-language compiler framework, wherein the compiler framework provides a language-independent source code editor with information about the source file, comprising[[:]] signatures of classes defined by the source file, errors found in the source file, stack of nested languages at any point in the source file, and information exposed by any languages; ~~and~~

the language-independent source code editor, wherein the language-independent source code editor communicates to the compiler framework using language-independent metadata;

wherein the extensible multi-language compiler framework has error correction in code-generation, permitting a user to run code even if there is an error in the code;

wherein a thread pool allows compilation of multiple files to be performed in parallel; and

wherein a type cache contains signatures for classes.

The Office Action rejected claim 1 over the combination of Abrams, Chan, Patel, Iwashita, and Skinner.

Abrams describes a “method and system for compiling multiple source language files that share a common library. The common library is represented in a common language that can be used by multiple different source languages. Front end compiler systems read the common language files that make up the common library and the source language files that use the library. Additionally, the front end systems produce common language files. The common language files produced by the

front end systems can be used in the common library. The common language files may also be supplied to a back end system or runtime environment that further compiles the common language file to an executable form and executes the file. At runtime, the common language file is used by the runtime environment to layout the objects and methods used during execution.”

Chan describes development assistance for mixed-language sources. Patel describes a system where errors that are caused by incorrect file paths are corrected with the correct file paths. Iwashita describes “using the compiler 50, a procedure code is shared by a series of files simultaneously compiled. In the link-editing process, a file storing a procedure code is specified in the object file. The linking process can be performed by the compiler 50, or can be performed by a module other than a compiler as with the configuration shown in Fig. 22.” Skinner’s active update notification system describes a client side object cache storing data objects in Fig. 3.

The Office Action conceded that Abrams does not disclose that “a thread pool allows compilation of multiple files to be performed in parallel.” However, the Office Action asserted that Iwashita teaches those features, citing col. 15, lines 34-36, Fig. 22, Fig. 24, and associated text. Iwashita describes “using the compiler 50, a procedure code is shared by a series of files simultaneously compiled. In the link-editing process, a file storing a procedure code is specified in the object file. The linking process can be performed by the compiler 50, or can be performed by a module other than a compiler as with the configuration shown in Fig. 22.” Iwashita describes sharing a procedure code amongst a series of files simultaneously compiled. Iwashita does not disclose that “a thread pool allows compilation of multiple files to be performed in parallel.” None of the five references cited against Claim 1 appear to disclose a thread pool. Furthermore, while Iwashita describes “a series of files simultaneously compiled,” Iwashita does not state that these files are compiled in parallel. Finally, there is no teaching in Iwashita that a thread pool is used for the “series of files simultaneously compiled.”

Applicants respectfully submit that the embodiment as defined in independent claim 1 is not obvious in view of the combination of Abrams, Chan, Patel, Skinner, and Iwashita. Applicants respectfully request that the 35 U.S.C. § 103(a) rejection to claim 1 be withdrawn.

35 U.S.C. 103(a) Rejections to Dependent Claims 6-12, 14-26, and 28-30

Dependent claims 6-12, 14-26, and 28-30 depend from claim 1. For at least the reasons discussed above with regard to claim 1, dependent claims 6-12, 14-26, and 28-30 are also patentable. Dependent claims 6-12, 14-26, and 28-30 add their own features, which render them patentable in their own right.

IV. Conclusion

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and a Notice of Allowance is requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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